AMENDMENTS

In the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A light-emitting apparatus comprising:

a light source that emits primary light; ~~and~~

~~a phosphor that absorbs at least part of the primary light emitted from the light source and emits secondary light having a longer peak wavelength than the primary light,~~

~~wherein the phosphor is formed of fine-particle crystals of a III-V group compound semiconductor, the fine-particle crystals each having a volume of 2-800 nm^3 or less.~~

a phosphor formed as fine-particle crystals of a III-V group compound semiconductor, the fine-particle crystals being nano-crystals each having a volume of 2800 nm^3 or less; and

a phosphorescent portion formed by combining the phosphor with a transparent member,

wherein the phosphorescent portion receives the primary light emitted from the light source directly with the primary light unscattered in an optical path therebetween so that the phosphor absorbs at least part of the primary light and emits secondary light having a longer peak wavelength than the primary light.

2. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein, of the III group elements and V group elements contained in the III-V group compound semiconductor, 50 % or more of the III group elements is indium, and 95 % or more of the V group elements is nitrogen.

3. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein ~~the fine particle crystals of the III-V group compound semiconductor have a predetermined volume distribution so that the secondary light emitted from the phosphor has a wavelength distribution corresponding to the volume distribution of the fine particle crystals.~~

the phosphorescent portion has a multilayer structure in which a volume distribution of the nano-crystals varies unilaterally from an entrance side to an exit side of the primary light, and the phosphorescent portion emits the secondary light having a wavelength distribution corresponding to the volume distribution.

4. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein the III-V group compound semiconductor is a nitride semiconductor, and the ~~fine particle crystals~~ nano-crystals thereof are each composed of a single portion having a uniform energy band gap.

5. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein the III-V group compound semiconductor is a nitride semiconductor, and the ~~fine particle crystals~~ nano-crystals thereof are each composed of a first portion and a second portion that encloses the first portion and that has a greater energy band gap than the first portion.

6. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein, as the phosphorescent portion, the ~~fine particle crystals~~ nano-crystals of the III-V group compound semiconductor are dispersed in glass, and the peak wavelength of the primary light emitted from the light source is in a range from 380 nm to 500 nm, both ends inclusive.

7. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein, as the phosphorescent portion, the ~~fine particle crystals~~ nano-crystals of the III-V group compound semiconductor are dispersed in resin, and the peak wavelength of the primary light emitted from the light source is in a range from 395 nm to 500 nm, both ends inclusive.

8. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein, in an optical path from the light source to the ~~phosphor~~ phosphorescent portion, a filter is provided that cuts off light of wavelengths shorter than 395 nm.

9. (Currently Amended) A light-emitting apparatus as claimed in claim 1,

wherein, opposite to a side of the phosphorescent portion to which the primary light enters and in an optical path of the secondary light emitted from the phosphor, a filter for cutting off only the primary light that passes through the phosphorescent portion is provided ~~that cuts off the primary light emitted from the light source~~.

10. (Original) A light-emitting apparatus as claimed in claim 1,

wherein the light source includes a light-emitting device using a nitride-based III-V group compound semiconductor.

11. (Currently Amended) A light-emitting apparatus comprising:

a light source that emits primary light; ~~and~~

~~a phosphor that absorbs at least part of the primary light emitted from the light source and emits secondary light having a longer peak wavelength than the primary light,~~

~~wherein the phosphor is formed of fine-particle crystals of a III-V group compound semiconductor, the fine-particle crystals each measuring 14 nm or less in two directions perpendicular to a longest side thereof.~~

a phosphor formed as fine-particle crystals of a III-V group compound semiconductor, the fine-particle crystals being nano-crystals each measuring 14 nm or less in two directions perpendicular to a longest side thereof; and

a phosphorescent portion formed by combining the phosphor with a transparent member,

wherein the phosphorescent portion receives the primary light emitted from the light source directly with the primary light unscattered in an optical path therebetween so that the phosphor absorbs at least part of the primary light and emits secondary light having a longer peak wavelength than the primary light.

12. (Original) A light-emitting apparatus as claimed in claim 11,

wherein, of III group elements and V group elements contained in the III-V group compound semiconductor, 50 % or more of the III group elements is indium, and 95 % or more of the V group elements is nitrogen.

13. (Currently Amended) A light-emitting apparatus as claimed in claim 11,

wherein ~~the fine-particle crystals of the III-V group compound semiconductor have a predetermined volume distribution so that the secondary light emitted from the phosphor has a wavelength distribution corresponding to the volume distribution of the fine-particle crystals.~~

the phosphorescent portion has a multilayer structure in which a volume distribution of the nano-crystals varies unilaterally from an entrance side to an exit side of the primary light, and the phosphorescent portion emits the secondary light having a wavelength distribution corresponding to the volume distribution.

14. (Currently Amended) A light-emitting apparatus as claimed in claim 11, wherein the III-V group compound semiconductor is a nitride semiconductor, and the ~~fine-particle crystals~~ nano-crystals thereof are each composed of a single portion having a uniform energy band gap.

15. (Currently Amended) A light-emitting apparatus as claimed in claim 11, wherein the III-V group compound semiconductor is a nitride semiconductor, and the ~~fine-particle crystals~~ nano-crystals thereof are each composed of a first portion and a second portion that encloses the first portion and that has a greater energy band gap than the first portion.

16. (Currently Amended) A light-emitting apparatus as claimed in claim 11, wherein, as the phosphorescent portion, the ~~fine-particle crystals~~ nano-crystals of the III-V group compound semiconductor are dispersed in glass, and the peak wavelength of the primary light emitted from the light source is in a range from 380 nm to 500 nm, both ends inclusive.

17. (Currently Amended) A light-emitting apparatus as claimed in claim 11, wherein, as the phosphorescent portion, the ~~fine-particle crystals~~ nano-crystals of the III-V group compound semiconductor are dispersed in resin, and the peak wavelength of the primary light emitted from the light source is in a range from 395 nm to 500 nm, both ends inclusive.

18. (Currently amended) A light-emitting apparatus as claimed in claim 11,

wherein, in an optical path from the light source to the ~~phosphor~~ phosphorescent portion, a filter is provided that cuts off light of wavelengths shorter than 395 nm.

19. (Currently Amended) A light-emitting apparatus as claimed in claim 11,

wherein, opposite to a side of the phosphorescent portion to which the primary light enters and in an optical path of the secondary light emitted from the phosphor, a filter for cutting off only the primary light that passes through the phosphorescent portion is provided ~~that cuts off the primary light emitted from the light source~~.

20. (Original) A light-emitting apparatus as claimed in claim 11,

wherein the light source includes a light-emitting device using a nitride-based III-V group compound semiconductor.

21. (Withdrawn) A phosphor comprising:

fine-particle crystals of a III-V group compound semiconductor,

wherein the fine-particle crystals each have a volume of 2800 nm^3 or less.

22. (Withdrawn) A method of producing a phosphor, comprising the step of

producing, from materials containing a III group element and a V group element and through chemical synthesis, a phosphor formed of a III-V group compound semiconductor in a form of fine-particle crystals each having a volume of 2800 nm^3 or less.

23. (Withdrawn) A method of producing a phosphor, comprising the step of producing, by using a III-V group compound semiconductor as a material and by laser ablation, a phosphor formed of fine-particle crystals each having a volume of 2 800 nm^3 or less.

24. (Withdrawn) A phosphor comprising:

fine-particle crystals of a III-V group compound semiconductor,

wherein the fine-particle crystals each measure 14 rim. or less in two directions perpendicular to a longest side thereof.

25. (Withdrawn) A method of producing a phosphor, comprising the step of producing, from materials containing a III group element and a V group element and through chemical synthesis, a phosphor formed of a III-V group compound semiconductor in a form of fine-particle crystals each measuring 14 nm or less in two directions perpendicular to a longest side thereof.

26. (Withdrawn) A method of producing a phosphor, comprising the step of producing, by using a III-V group compound semiconductor as a material and by laser ablation, a phosphor formed of fine-particle crystals each measuring 14 nm or less in two directions perpendicular to a longest side thereof.